

In the Claims:

✓Please cancel Claims 1-14.

✓Please add Claims 15-18, as set forth below.

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15. A fail-safe engine cooling control system for a hybrid electric vehicle (HEV) having an internal combustion engine, an electric traction motor, and a storage battery for furnishing power to the electric traction motor, with said cooling control system comprising:

an engine temperature sensor;

a battery state of charge indicator;

a vehicle system controller (VSC) for receiving a temperature signal from the engine temperature sensor and a state of charge signal from the battery state of charge indicator; and

an engine control unit operated by the VSC, with the engine control unit being directed to operate the engine in a fail-safe mode in the event that the engine temperature exceeds a predetermined temperature threshold, with said engine controller halting the engine if the battery state of charge is greater than a predetermined charge threshold, and with said engine controller operating the engine on alternating cylinders in the event that the battery state of charge is less than said predetermined charge threshold.

16. A fail-safe engine cooling system according to Claim 15, wherein said VSC directs the engine controller to operate the engine on alternating cylinders when the speed of the HEV exceeds a predetermined speed threshold and the engine temperature exceeds said predetermined temperature threshold.

17. A fail-safe engine cooling system according to Claim 15, wherein said VSC directs the engine controller to operate the engine on alternating cylinders when an air conditioning system incorporated in the HEV is operating and the engine temperature exceeds said predetermined temperature threshold.

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18. A method for operating an engine in a hybrid electric vehicle having both an internal combustion engine and a traction motor, with said method comprising the steps of:
measuring an operating temperature of the engine;
measuring a state of charge of an electric storage device connected to said traction motor;
and
in the event that said operating temperature exceeds a predetermined temperature threshold and said state of charge is less than a predetermined charge threshold, operating the engine on alternating cylinders so as to lower the operating temperature of the engine.
